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United States Patent [19]

Williams et al.

[11] **Patent Number:** **5,169,656**[45] **Date of Patent:** **Dec. 8, 1992**[54] **EFFICIENT FEEDING FREQUENCY**

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[58] Field of Search **426/2, 623, 630, 635, 426/807, 69, 74, 656, 658**

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[57]

ABSTRACT

Ruminant animals, as herbivores, survive and produce while feeding chiefly on grass or other roughage consisting of large amounts of cellulose. Ruminants which have been consuming primarily diets high in cellulose must gradually be adjusted to high grain rations. When the attempt is made to adapt and feed ruminants diets containing no roughage, metabolic problems surface. The increase in lactic acid and accompanying fall in rumen pH resulting from roughage or cellulose withdrawal leads not only to the destruction of cellulolytic bacteria which digest cellulose), but to the destruction of lactate utilizing organisms, resulting in acidosis and its attendant adverse effects, which results in less than optimal cattle performance. Herein roughage can be eliminated allowing ruminants to consume an all grain, properly balanced due without these adverse reactions. A roughage free diet for ruminants is provided which alters the eating behavior of cattle. The die incorporates ingredients which modify feed consumption patterns of cattle consuming a roughage free diet.

10 Claims, No Drawings